Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

Message Text

UNCLASSIFIED

PAGE 01 LONDON 12895 01 OF 05 041659Z
ACTION EUR-12

INFO OCT-01 ISO-00 AID-05 CEA-01 CIAE-00 COME-00
DODE-00 EB-08 FEAE-00 FPC-01 H-02 INR-07 INT-05
L-03 NSAE-00 NSC-05 OMB-01 PM-05 USIA-15 OES-07
SP-02 SS-15 STR-04 TRSE-00 ACDA-10 PA-02 PRS-01
NRC-07 MC-02 EPA-04 CEQ-01 EURE-00 /126 W
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P R 041635Z AUG 77
FM AMEMBASSY LONDON
TO SECSTATE WASHDC PRIORITY 6843
INFO AMEMBASSY BRUSSELS
ERDA HQ WASHDC PRIORITY

UNCLAS SECTION 01 OF 05 LONDON 12895

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E.O. 11652: N/A
TAGS: ENRG, MNUC, TECH, UK
SUBJECT: GOVERNMENT ADVISED TO ABANDON SGHWR, INTRODUCE PWR

REF: 76 LONDON A-533

1. SUMMARY. THE NATIONAL NUCLEAR CORPORATION (NNC) HAS RECOMMENDED TO THE GOVERNMENT THAT THE STEAM GENERATING HEAVY WATER REACTOR (SGHWR) BE ABANDONED. THE NNC RECOMMENDS THAT THE GOVERNMENT NOT CONTINUE WITH THE ADVANCED GAS COOLED REACTOR (AGR) ALONE, BUT RATHER THAT THE PRESSURIZED WATER REACTOR (PWR) BE ADOPTED, PROBABLY IN TANDEM WITH THE AGR. IN A SECOND REPORT, THE NUCLEAR INSTALLATIONS INSPECTORATE (NII) SAID THERE ARE FUNDAMENTALLY NO SAFETY OBJECTIONS TO THE ADOPTION OF THE PWR. END SUMMARY.

UNCLASSIFIED

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PAGE 02 LONDON 12895 01 OF 05 041659Z

2. ON JULY 29 SECRETARY OF STATE FOR ENERGY TONY BENN PUBLISHED A SUMMARY OF A THERMAL REACTOR ASSESSMENT REPORT PREPARED BY THE NATIONAL NUCLEAR CORPORATION, SHOWING SOME OF THE MAIN CONCLUSIONS AND SUMMARIZING THE ATTRIBUTES OF THE THREE THERMAL REACTORS STUDIED BY NNC--THE SGHWR, THE AGR, AND THE PWR. THE NNC STUDY GREW OUT OF BENN'S ACCEPTING A PROPOSAL MADE BY NNC

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

THAT AN ASSESSMENT SHOULD BE MADE OF THESE THREE RE-
ACTOR SYSTEMS. DURING THE COURSE OF THE ASSESSMENT,
BENN ASKED THAT ANSWERS BE PROVIDED TO SOME RELATED
QUESTIONS; AND IN ADDITION, THE CENTRAL POLICY REVIEW
STAFF (THE CABINET OFFICE'S "THINK TANK") IN ITS REPORT
ON THE POWER PLANT INDUSTRY PUBLISHED IN NOVEMBER 1976,
POINTED TO THE IMPORTANCE AND DIFFICUTIES OF EXPORTS
OF POWER PLANT, AND IN PARTICULAR TO THE FACT THAT
"BRITAIN DOES NOT HAVE A NUCLEAR SYSTEM WITH EXPORT
POTENTIAL TO OFFER." THE NNC IS A BODY OWNED BY THE
UKAEA, GEC, AND OTHER POWER STATION EQUIPMENT MANU-
FACTURERS. ITS CHAIRMAN, LORD ALDINGTON, WHO SPOKE TO
THE PRESS ON JULY 29, INSISTED THAT ITS TASK WAS NOT
TO MAKE RECOMMENDATIONS ON DECISIONS THAT SHOULD BE
MADE BY THE GOVERNMENT AND THE CUSTOMERS (THE ELECTRIC-
ITY BOARDS); RECOMMENDATIONS DO EMERGE FROM THE
SUMMARY. THE CLEAREST IS THAT THE SGHWR SHOULD BE
DROPPED. A SIMILAR PROPOSAL WAS PUT PRIVATELY BY
NUCLEAR OFFICIALS TO THE CENTRAL ELECTRICITY GENERATING
BOARD IN 1974 BUT REBUFFED. LORD ALDINGTON POINTED OUT
THAT THE CEGB DID NOT THEN HAVE THE CONFIDENCE IN THE
AGR THAT HAS BUILT UP OVER THE LAST 18 MONTHS. WHEN
ASKED WHETHER HETHOUGHTTHE REPORT PROVIDED THE GOVERN-
MENT WITH THE BASIS FOR A CLEAR-CUT DECISION, LORD
ALDINGTON SAID: "ANY DECISION THAT TAKES THIS REPORT
INTO ACCOUNT WILL BE A BETTER DECISION THAN ONE THAT
UNCLASSIFIED

UNCLASSIFIED

PAGE 03 LONDON 12895 01 OF 05 041659Z

DOESN'T."

3. THE FOLLOWING ARE EXTRACTS FROM THE INTRODUCTION
AND CONCLUSIONS OF THE STUDY:

"IT WILL...BE USEFUL TO RECORD, AT THE OUTSET, THAT
AN ANALYSIS OF THE INDUSTRY, AS WELL AS THE ASSESSMENT
OF THE REACTOR SYSTEMS, LEADS TO THE CONCLUSION THAT A
DECISION HAS TO BE TAKEN NOW BOTH ABOUT REACTOR SYSTEMS
AND ABOUT ACTUAL ORDERS OF NUCLEAR POWER STATIONS IF THE
NUCLEAR POWER OPTION IS TO BE MAINTAINED IN A MEANING-
FUL WAY. WITHOUT THE DECISIONS THERE WILL BE NO PROPER
BRITISH NUCLEAR CAPABILITY AFTER A FEW YEARS, AND THERE
CAN BE NO EXPLOITATION OF THE OPPORTUNITIES IN OVERSEAS
MARKETS. THE LAST ORDER FOR A NUCLEAR POWER STATION
WAS RECEIVED IN 1970....

"WE HAVE CONCLUDED THAT IN ALL THE CIRCUMSTANCES
OF TODAY, WHICH ARE DIFFERENT FROM THOSE IN 1974, THERE
IS NO CASE FOR THE ADOPTION OF SGHWR. THERE COULD BE
NO OPERATIONAL EXPERIENCE OF COMMERCIAL SIZES FOR A
DECADE AND NO CHANCE OF EXPORTS IN THE FORESEEABLE

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

FUTURE. IT IS CLEAR THAT IT IS THE MOST COSTLY OF THE
THREE SYSTEMS; THAT IT WOULD REQUIRE EXPENDITURE ON

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NNN

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PAGE 01 LONDON 12895 02 OF 05 041701Z
ACTION EUR-12

INFO OCT-01 ISO-00 AID-05 CEA-01 CIAE-00 COME-00
DODE-00 EB-08 FEAE-00 FPC-01 H-02 INR-07 INT-05
L-03 NSAE-00 NSC-05 OMB-01 PM-05 USIA-15 OES-07
SP-02 SS-15 STR-04 TRSE-00 ACDA-10 PA-02 PRS-01
NRC-07 MC-02 EPA-04 CEQ-01 EURE-00 /126 W
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P R 041635Z AUG 77
FM AMEMBASSY LONDON
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INFO AMEMBASSY BRUSSELS
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UNCLAS SECTION 02 OF 05 LONDON 12895

DEVELOPMENT IN THE NEXT 7 YEARS CONSIDERABLY LARGER THAN
BOTH THE P.W.R. AND AGR TOGETHER IN THAT PERIOD AND THAT
THE IMPORT OF HEAVY WATER WOULD BE A SIGNIFICANT LOAD
ON THE BALANCE OF PAYMENTS.

"THE CHOICE THEREFORE LIES BETWEEN AGR AND PWR....
THE CHOICES OPEN SEEMED AT ONE TIME TO BE CONFINED TO
TWO:

(A) CONTINUE WITH AGR, DO NOT ADOPT THE PWR;

(B) ADOPT THE PWR, FINISH THE CURRENT AGR STATION
PROGRAMME, BUT DO NOT ADD TO IT.

"BUT TOWARDS THE END OF THE ASSESSMENT AND OF THE
CONSIDERATIONS OF THE CONCLUSIONS TO BE DRAWN FROM IT,
IT BECAME CLEAR THAT WE SHOULD ALSO CONSIDER A THIRD
CHOICE: ADOPT THE PWR, CONTINUE WITH THE AGR. INDEED,
THE SECRETARY OF STATE IMPLICITLY ASKED US TO CONSIDER
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Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

IT.

TO CONTINUE WITH THE AGR AND NOT TO ADOPT THE PWR, WOULD BE SEEN AS THE REJECTION OF PWR. WE SHOULD INDEED BE BUILDING ON THE BRITISH EXPERIENCE OF GAS-COOLED SYSTEMS FOR OUR DOMESTIC PROGRAMME, AND BE MEETING THE IMMEDIATE REQUIREMENTS OF THOSE WHO WANT THE MORE CERTAIN EARLIEST START ON CONSTRUCTION. BUT WE WOULD BE TURNING OUR BACKS ON EXPORTS OF NUCLEAR POWER STATIONS AND ON THE EXPANSION OF EXPORTS OF CERTAIN COMPONENTS, WITH POTENTIALLY DAMAGING CONSEQUENCES FOR THE FUTURE EXPORT OF BRITISH POWER PLANT. WE WOULD BE REJECTING THE LOGIC OF THE CPRS REPORT ON THE IMPORTANCE OF AND THE OPPORTUNITIES FOR EXPORT FOR THE POWER PLANT IN-DUSTRY.

"WHILST WE DO NOT CONSIDER IT OUR ROLE TO MAKE A RECOMMENDATION ON THE POLICY TO BE FOLLOWED, WE CANNOT ADVISE THIS CHOICE. WE HAVE ASCERTAINED NO ADVANTAGES IN THE AGR SYSTEM WHICH ARE SO CERTAIN THAT THEY WOULD JUSTIFY THE REJECTION OF THE OPPORTUNITIES FOR EXPORT, WHICH THE PWR HAS AND THE AGR HAS NOT....THE UK, LIKE ANY COUNTRY IN THE WORLD, WOULD REMAIN FREE TO INTRO-DUCE A PWR...BY BUYING ONE FROM OVERSEAS BUT...TO RE-ALIZE THE EXPORT POTENTIAL AND FOR ANY LARGE DOMESTIC ORDERS FOR THE 1990S, THE PWR WOULD NEED TO BE ADOPTED NOW TO ENSURE A U.K. INDUSTRIAL CAPABILITY.

"TO ADOPT PWR WITHOUT ANY FURTHER ORDERS FOR AGR WOULD HELP EXPORTS AND WOULD,...IN DUE COURSE LEAD TO THE CHEAPEST AVAILABLE ELECTRIC POWER FOR BRITAIN.... THE PRINCIPAL ARGUMENTS AGAINST THIS CHOICE ARE TACTI-CAL AND CONCERN THE SHORT TERM....IT WOULD PROBABLY NOT

BE POSSIBLE TO BEGIN THE CONSTRUCTION OF A FIRST PWR STATION IN BRITAIN UNTIL 1980. THIS DELAY COULD BE DAMAGING BECAUSE OF THE LACK OF WORK FOR THOSE PEOPLE MADE FREE BY THE COMPLETION OF AGRS NOW BUILDING....THIS CHOICE COULD BE JUSTIFIED IF IT WERE THOUGHT THAT THERE IS REASONABLE CERTAINTY THAT CONSTRUCTION COULD START ON THE FIRST PWR SITE IN 1980 AT THE LATEST....

"THE THIRD CHOICE OPEN IS TO ADOPT THE PWR AND TO CNTINUE WITH THE AGR....VARIOUS POSSIBILITIES HAVE BEEN

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

PROPOSED TO US, WHICH MAY BE SUMMARIZED:

(A) A FIRM PROGRAMME OF A NUMBER OF AGRS OVER THE NEXT SEVERAL YEARS WITH ONE PWR AS SOON AS PRACTICABLE; OR

(B) A FIRM PROGRAM OF A NUMBER OF PWRS WITH ONE AGR AT THE START; OR

(C) AN IMMEDIATE DECISION TO ORDER ONE OR TWO PWRS AND ONE OR TWO AGRS, WITH A FIRM DECISION THAT THE PWR SYSTEM IS APPROVED FOR THE UK, BUT DELAYING A DECISION ON THE MAKE-UP OF A FUTURE PROGRAMME....

"IF THE PRINCIPAL PURPOSES OF THIS GENERAL CHOICE OF TWO SYSTEMS ARE TO BE ACHIEVED, THE EARLY ADOPTION OF THE PWR HAS TO BE SUPPORTED BY A DOMESTIC ORDERING PROGRAMME AND BY THE RECOMMENDED DEVELOPMENT WORK, AND AN AGR STATION HAS TO BE ORDERED AND BUILT, BOTH OF THEM IN SUCH A WAY AS TO HELP AND NOT TO HINDER THE UNITED KINGDOM EXPORT CAPABILITY....THE INTRODUCTION OF PWR

UNCLASSIFIED

NNN

UNCLASSIFIED

PAGE 01 LONDON 12895 03 OF 05 041704Z
ACTION EUR-12

INFO OCT-01 ISO-00 AID-05 CEA-01 CIAE-00 COME-00
DODE-00 EB-08 FEAE-00 FPC-01 H-02 INR-07 INT-05
L-03 NSAE-00 NSC-05 OMB-01 PM-05 USIA-15 OES-07
SP-02 SS-15 STR-04 TRSE-00 ACDA-10 PA-02 PRS-01
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FM AMEMBASSY LONDON
TO SECSTATE WASHDC PRIORITY 6845
INFO AMEMBASSY BRUSSELS
ERDA HQ WASHDC PRIORITY

UNCLAS SECTION 03 OF 05 LONDON 12895

INTO NPC AND BRITISH INDUSTRY INVOLVES MORE LEARNING AND INVESTMENT EFFORT THAN IS INVOLVED IN THE FURTHER

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

DEVELOPMENT OF AGR AND THEREFORE A PROGRAMME DESIGNED TO ACHIEVE THE PURPOSES OF THIS CHOICE WOULD NECESSARILY INCLUDE IN THE EARLY YEARS MORE THAN ONE PWR."

4. THE FOLLOWING ARE EXCERPTS FROM AN APPENDIX TO REPORT ENTITLED "SUMMARY OF MAIN FEATURES OF ASSESSMENT". THE ASSUMPTION ABOUT THE SIZE OF THE PROGRAM WAS FOUR STATIONS OF 1100 TO 1300 MW EACH ORDERED OVER SIX YEARS, WITH CONSTRUCTION STARTING FROM 1979.

"FOR THE ASSESSMENT THREE REFERENCE DESIGNS WERE SELECTED....THE AGR IS BASED ON THE 660 MW UNIT OPERATING AT HINKLEY POINT "B". THE PWR IS BASED ON THE 1160 MW UNIT OPERATING AT TROJAN, OREGON....THE SGHWR IS THE 660 MW CONCEPT DEVELOPED OVER THE LAST TWO YEARS BY NPC....

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"ALL THREE REACTOR SYSTEMS ARE JUDGED TO BE CAPABLE OF MEETING THE UK SAFETY REQUIREMENTS. FOR THE AGR THIS CAN BE ACHIEVED BY LIMITED MODIFICATIONS TO THE HINKLEY POINT "B" DESIGN....THE NORMAL WESTINGHOUSE PROPOSAL FOR THE PWR WILL ALSO REQUIRE SOME ADDITIONS TO MEET PRESENT UK STANDARDS WHERE THESE DIFFER FROM THOSE ACCEPTED IN THE U.S. THE NII GENERIC SAFETY STUDY HAS RAISED QUESTIONS ON PWR TECHNOLOGY WHICH ARE ALSO BEING DEBATED ACTIVELY IN THE U.S. AND IN THOSE COUNTRIES WHICH HAVE ADOPTED PWRS....IN THE CASE OF THE SGHWR, THE DETAILED DESIGN HAS BEEN DEVELOPED SPECIFICALLY AGAINST THE CURRENT CEGB SAFETY REQUIREMENTS AND IN PARALLEL WITH THE DRAFTING OF THE NII GUIDELINES. IN CONSEQUENCE A HIGH DEGREE OF COMPLIANCE HAS BEEN ACHIEVED....

"SECURITY OF THE INVESTMENT IS MEASURED BY THE PROBABILITY THAT A POWER STATION WILL COMPLETE ITS ECONOMIC LIFE AND IS DEPENDENT ON THE INITIAL DESIGN AND THE FACILITY WITH WHICH REPAIR CAN BE EFFECTED.... OVERALL, THE PWR GIVES THE GREATEST SECURITY OF THE INVESTMENT AND THE AGR THE LEAST, BUT IN ALL CASES THE RISK IS ACCEPTABLE AND IS TOO SMALL TO REPRESENT A SIGNIFICANT DISTINCTION BETWEEN THE SYSTEMS.

"THE DYNAMIC PERFORMANCE OF THE THREE SYSTEMS ARE SIMILAR....THE ANTICIPATED AVAILABILITV OF THE THREE SVSTEMS CANNOT BE PREDICTED BECAUSE OF LACK OF DATA.... ALL THREE SVSTEMS HAVE SATISFACTORY CHARACTERISTICS CONERNING THE RADIATION LEVELS AT THE SITE BOUNDARY AND NO PROBLEMS ARE FORESEEN IN DEALING WITH ACTIVE EFFLUENT DISPOSAL....THE COOLING WATER REQUIREMENTS OF THE

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

AGR ARE APPRECIABLY LESS THAN THOSE FOR THE WATER RE-
ACTORS BECAUSE OF THE RELATIVELY HIGH THERMAL EFFICIENCY
UNCLASSIFIED

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PAGE 03 LONDON 12895 03 OF 05 041704Z

....(WHICH)...ALSO LEADS TO A SMALLER REQUIREMENT FOR
URANIUM ORE FOR THE AGR OVER ITS OPERATIONAL LIFE....
DECOMMISSIONING OF THE THREE SYSTEMS HAS BEEN STUDIED
IN PRINCIPLE, AND SHOWS APPRECIABLE ADVANTAGE TO THE
WATER REACTORS....

"FOLLOWING THE DIFFICULTIES EXPERIENCED IN BUILDING
AND COMMISSIONING THE MORE COMPLEX PLANTS OF RECENT
YEARS, THERE HAS BEEN A GROWING EMPHASIS ON THE COM-
PLETION OF MORE DEVELOPMENT AND TESTING BEFORE THE
COSTLY CONSTRUCTION PHASE IS STARTED....FOR THE PWR, A
LARGE AMOUNT OF INFORMATION CAN BE MADE AVAILABLE FROM
OTHER COUNTRIES WHERE THE SYSTEM IS ALREADY IN OPERA-
TION. A STRONG TECHNOLOGY BASE MUST, HOWEVER, BE
ESTABLISHED IN THE UK FOR A CONTINUING REACTOR PRO-
GRAMME, NOT ONLY TO PROVIDE A COMPLETE UNDERSTANDING OF
THE SYSTEM...BUT ALSO TO ENSURE THAT UK INDUSTRY CAN
PARTICIPATE FULLY AND EFFECTIVELY. IN ADDITION TO
THESE DEVELOPMENT REQUIREMENTS WHICH HAVE BEEN COSTED
UP TO THE TIME OF COMMISSIONING THE FIRST UNIT IN 1985,
FUNDS WILL BE REQUIRED FOR INDUSTRIAL INVESTMENT, PROTO-
TYPE MANUFACTURE AND TESTING, AND LICENSE FEES. THE
TOTAL ESTIMATED FOR ALL THESE FACTORS INCLUDING DEVELOP-
MENT IS: AGR-52 MILLION POUNDS; PWR-72 MILLION POUNDS;
SGHWR-135 MILLION POUNDS....IF THESE COSTS ARE DISTRI-
BUTED OVER THE ASSUMED FOUR STATION PROGRAMME, THE
EFFECT ON THE GENERATION COST IS SMALL AND VARIES FROM
1 TO 3 PERCENT FOR THE DIFFERENT SYSTEMS....

"THE ASSESSMENT (OF EFFECT ON INDUSTRY) IS BASED
UPON THE ASSUMPTION THAT THE FIRST STATION SHOULD GET
COMMITTED AT THE EARLIEST PRACTICABLE DATE BUT WITH A

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PAGE 01 LONDON 12895 04 OF 05 041706Z
ACTION EUR-12

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

INFO OCT-01 ISO-00 AID-05 CEA-01 CIAE-00 COME-00
DODE-00 EB-08 FEAE-00 FPC-01 H-02 INR-07 INT-05
L-03 NSAE-00 NSC-05 OMB-01 PM-05 USIA-15 OES-07
SP-02 SS-15 STR-04 TRSE-00 ACDA-10 PA-02 PRS-01
NRC-07 MC-02 EPA-04 CEQ-01 EURE-00 /126 W
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P R 041635Z AUG 77
FM AMEMBASSY LONDON
TO SECSTATE WASHDC PRIORITY 6846
INFO AMEMBASSY BRUSSELS
ERDA HQ WASHDC PRIORITY

UNCLAS SECTION 04 OF 05 LONDON 12895

SLOW RATE OF COMMITMENT--APPROXIMATELY ONE EVERY TWO YEARS--OF SUBSEQUENT STATIONS....IF THE DECISION ON REACTOR CHOICE IS MADE THIS SUMMER AND THE LICENSING PROCEDURES ARE THEN COMPLETED TO SEQUENCE, IT IS JUDGED THAT THE EARLIEST DATE OF CONSTRUCTION START FOR A FIRST AGR STATION WOULD BE FEBRUARY 1979, WHEREAS THE CORRESPONDING DATES FOR PWR AND SGHWR WOULD BE 3-6 MONTHS LATER. IN THE CASE OF THE PWR THIS STARTING DATE WOULD PROBABLY PRECLUDE THE ADOPTION OF A SINGLE 1200 MW TURBINE-GENERATOR FOR THE FIRST STATION BECAUSE THE NECESSARY DEVELOPMENT MAY NOT BE COMPLETED. MOREOVER, WE JUDGE THAT, IN PRACTICE, THE ASSUMPTIONS OF TIMELY CLEARANCE ARE MORE QUESTIONABLE FOR THE PWR....IF EITHER THE AGR OR THE SGHWR IS SELECTED THEN THE TOTAL EX-PENDITURE WITHIN THE VARIOUS UK FACTORIES WILL EXCEED 1,000 MILLION POUNDS OVER A PERIOD OF ABOUT 10 YEARS. FOR THE PWR THIS WILL BE ABOUT 600 MILLION POUNDS.... THE IMPORT BILL FOR A FOUR STATION PROGRAMME IS VERY SMALL FOR THE AGR AT 7 MILLION POUNDS. THE RELATIVELY UNCLASSIFIED

UNCLASSIFIED

PAGE 02 LONDON 12895 04 OF 05 041706Z

LARGE FIGURE (104 MILLION POUNDS)QUOTED FOR PWR COM-PONENT IMPORTS COULD BE REDUCED IF ARRANGEMENTS FOR THE FABRICATION OF THE REACTOR VESSELS AND INTERNALS WERE MADE AT THE TIME OF THE REACTOR DECISION....THE TOTAL IMPORT BILL FOR THE SGHWR PROGRAMME WOULD ALMOST CERTAINLY EXCEED 200 MILLION POUNDS AS NO CASE CAN BE MADE FOR SETTING UP A UK PLANT TO PRODUCE HEAVY WATER FOR A SMALL PROGRAMME....THE PWR IS THE SYSTEM GIVING BEST PROSPECTS (FOR REACTOR EXPORTS) AND ALSO IN IM-PROVING THE EXPORT POSITION OF UK SUPPLIERS OF INDI-VIDUAL PWR COMPONENTS. IF THE UK AGRS CONTINUE TO WORK WELL THERE MAY BE A LIMITED PROSPECT FOR THE AGR IN ONE

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

OR TWO COUNTRIES. THE SGHWR IS NOW TOO LATE TO HAVE ANY OVERSEAS SALES PROSPECTS IN THE NEXT DECADE....

"THE RELATIVE COST OF ADOPTING ANY ONE OF THE REACTOR SYSTEMS HAS BEEN DERIVED BY ESTIMATING THE CONSTRUCTION AND GENERATION COSTS OF A TYPICAL ESTABLISHED (THIRD OR FOURTH) STATION WHERE THE EARLY INFLUENCE OF FIRST-OFF COSTS AND INEXPERIENCE ARE NO LONGER RELEVANT ....IT SEEMS PROBABLE THAT THE PWR WILL BE ABOUT 15 PERCENT LOWER IN CAPITAL COST THAN THE AGR AND 25 PERCENT LOWER THAN THE SGHWR. THE FINAL GENERATION COST ADVANTAGE TO THE PWR WILL BE 10-15 PERCENT COMPARED TO THE AGR AND MORE THAN 20 PERCENT COMPARED TO THE SGHWR ....THE FIGURES DO NOT INCLUDE THE ESTIMATED LAUNCHING COSTS...BUT, AS ALREADY STATED, IF THESE ARE DISTRIBUTED OVER A FOUR STATION PROGRAMME, THE EFFECT IS ONLY BETWEEN 1 AND 3 PERCENT OF THE GENERATION COST...."

5. THE NNC SUGGESTIONS CAN BE BOILED DOWN TO THE RECOMMENDATION THAT BRITAIN ORDER AT LEAST ONE MORE AGR STATION AND SIMULTANEOUSLY INTRODUCE THE AMERICAN-
UNCLASSIFIED

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PAGE 03 LONDON 12895 04 OF 05 041706Z

DESIGNED PWR TYPE OF REACTOR, WHILE ABANDONING THE SGHWR. THIS IS A COMPROMISE BETWEEN THE BRITISH NUCLEAR INDUSTRY'S URGENT NEED FOR NEW BUSINESS-WHICH WOULD BE MET BY AN AGR ORDER--AND ITS HOPES FOR BUILDING UP A SIGNIFICANT EXPORT TRADE--FOR WHICH THE PWR IS THE CANDIDATE. IN HIS MEETING WITH THE PRESS, LORD ALDINGTON SAID THAT HIS DISCUSSIONS WITH CHAIRMEN OF NUCLEAR COMPONENT MAKERS HAD CONVINCED HIM THE INDUSTRY COULD COPE WITH TWO REACTORS IN PARALLEL. AGR COMPONENT MAKERS WERE WILLING TO REOPEN FACILITIES EVEN IF ONLY ONE FURTHER AGR STATION WAS IN PROSPECT. ALDINGTON SAID HE BELIEVED THAT AN EARLY START ON A NEW NUCLEAR STATION WOULD ALSO BE USEFUL IN PERSUADING CONTRACTORS TO COMPLETE THE THREE AGR STATIONS UNDER CONTRACT.

6. SAFETY REPORT. ON JULY 29 BENN ALSO ARRANGED FOR THE PUBLICATION OF A SUMMARY REPORT BY THE NUCLEAR INSTALLATIONS INSPECTORATE OF THE HEALTH AND SAFETY EXECUTIVE ON THE GENERIC SAFETY ISSUES OF THE PRESSURIZED WATER REACTOR. THE NII'S CONCLUSION IS THAT "THERE IS NO FUNDAMENTAL REASON FOR REGARDING SAFETY AS AN OBSTACLE TO THE SELECTION OF A PRESSURIZED WATER REACTOR (PWR) FOR COMMERCIAL ELECTRICITY GENERATION IN BRITAIN." THE BASIS OF THE REPORT IS A DETAILED CRITIQUE OF THE ASSUMPTIONS AND TECHNIQUES USED BY WESTINGHOUSE; LESS DETAILED DATA ON THE PWR DE-

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

SIGNED BY KRAFTWERK (GERMANY) WERE ALSO USED. NEVER-
THELESS, NII MAKES IT CLEAR THAT ITS REPORT IS ABOUT
PWRS IN GENERAL, NOT ANY ONE DESIGN.

7. ALTHOUGH ITS CONCLUSION IS FAVORABLE, NII NOTES
THAT "THERE ARE SOME SAFETY ASPECTS ABOUT WHICH PRESENT

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PAGE 01 LONDON 12895 05 OF 05 041706Z
ACTION EUR-12

INFO OCT-01 ISO-00 AID-05 CEA-01 CIAE-00 COME-00
DODE-00 EB-08 FEAE-00 FPC-01 H-02 INR-07 INT-05
L-03 NSAE-00 NSC-05 OMB-01 PM-05 USIA-15 OES-07
SP-02 SS-15 STR-04 TRSE-00 ACDA-10 PA-02 PRS-01
NRC-07 MC-02 EPA-04 CEQ-01 EURE-00 /126 W
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P R 041635Z AUG 77
FM AMEMBASSY LONDON
TO SECSTATE WASHDC PRIORITY 6847
INFO AMEMBASSY BRUSSELS
ERDA HQ WASHDC PRIORITY

UNCLAS SECTION 05 OF 05 LONDON 12895

INFORMATION AND INVESTIGATIONS ARE INSUFFICIENT TO ALLOW
FINAL CONCLUSIONS." HOWEVER,"THESE ISSUES ARE NOT SUCH
AS TO PREJUDICE AN IMMEDIATE DECISION." TO RESOLVE UN-
CERTAINTIES BEFORE ANY DECISION ON A PARTICULAR REACTOR
DESIGN IS REACHED, NII RECOMMENDS "A CONTINUING R&D
PROGRAMME IN PWR SAFETY IN THE UK IF THERE IS TO BE ANY
SIGNIFICANT DEPENDENCE ON PWR AS A COMMERCIAL SOURCE OF
ELECTRICITY." SUCH RESEARCH WOULD OFTEN BE DESIGNED TO
VALIDATE THE COMPUTER MODELS USED TO ANALYZE HAZARDS
THAT MAY NOT YET HAVE ARISEN, OR TO INCREASE CONFIDENCE
IN THEORETICAL ANALYSES. NII ALSO RECOMMENDS SOME
AREAS OF SPECIFIC RESEARCH, E.G., SWELLING IN FUEL RODS.
IN AN ACCIDENT INVOLVING LOSS OF COOLING WATER IN A
PWR, INCREASED PRESSURES AND TEMPERATURES COULD CAUSE
FUEL RODS TO SWELL, POSSIBLY PREVENTING THE EMERGENCY
COOLING SYSTEM COMING INTO OPERATION. THE REPORT SAYS
THERE IS NO REASON TO ASSUME MORE RESEARCH AND IMPROVED

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

DESIGN CAN'T SOLVE THIS PROBLEM. THE REPORT CONSIDERS POTENTIAL HAZARDS SUCH AS THIS NOT SERIOUS ENOUGH TO
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PAGE 02 LONDON 12895 05 OF 05 041706Z

INVALIDATE ITS CONCLUSIONS ABOUT PWRS AND SHOULD NOT BE ALLOWED TO HOLD UP A DECISION IN PRINCIPLE ON PWRS.

8. THE NII REPORT BOLSTERS THE IMPLICIT RECOMMENDATIONS OF THE NNC REPORT, THAT BRITAIN GO AHEAD WITH THE PWR (THOUGH ON THE BASIS OF LOCAL CONSTRUCTION, OF COURSE). THIS RECOMMENDATION SHOULD BE WELCOMED BY THE CENTRAL ELECTRICITY GENERATING BOARD (CEGB) WHICH HAS LONG LOOKED WITH FAVOR ON THE PWR.

9. BENN AND THE ELECTRICITY INDUSTRY HAD THE NNC REPORT SOME TWO WEEKS BEFORE PUBLICATION. THE FINAL DECISION ON THE FUTURE PROGRAM WILL BE TAKEN BY THE GOVERNMENT AFTER CONSULTATION WITH THE CEGB AND THE SOUTH OF SCOTLAND GENERATING BOARD. THE "GUARDIAN" SAYS "IT IS HOPED THIS CAN BE DONE BY OCTOBER."

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Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009

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Disposition Case Number: n/a
Disposition Comment:
Disposition Date: 01-Jan-1960 12:00:00 am
Disposition Event:
Disposition History: n/a
Disposition Reason:
Disposition Remarks:
Document Number: 1977LONDON12895
Document Source: CORE
Document Unique ID: 00
Drafter: n/a
Enclosure: n/a
Executive Order: N/A
Errors: N/A
Expiration:
Film Number: D770279-1081
Format: TEL
From: LONDON
Handling Restrictions: n/a
Image Path:
ISecure: 1
Legacy Key: link1977/newtext/t19770897/aaaadeoe.tel
Line Count: 574
Litigation Code IDs:
Litigation Codes:
Litigation History:
Locator: TEXT ON-LINE, ON MICROFILM
Message ID: 88a6fc61-c288-dd11-92da-001cc4696bcc
Office: ACTION EUR
Original Classification: UNCLASSIFIED
Original Handling Restrictions: n/a
Original Previous Classification: n/a
Original Previous Handling Restrictions: n/a
Page Count: 11
Previous Channel Indicators: n/a
Previous Classification: n/a
Previous Handling Restrictions: n/a
Reference: 76 LONDON A-533
Retention: 0
Review Action: RELEASED, APPROVED
Review Content Flags:
Review Date: 14-Oct-2004 12:00:00 am
Review Event:
Review Exemptions: n/a
Review Media Identifier:
Review Release Date: n/a
Review Release Event: n/a
Review Transfer Date:
Review Withdrawn Fields: n/a
SAS ID: 1710309
Secure: OPEN
Status: NATIVE
Subject: GOVERNMENT ADVISED TO ABANDON SGHWR, INTRODUCE PWR
TAGS: ENRG, MNUC, TECH, UK
To: STATE USEEC
Type: TE
vdkvgwkey: odbc://SAS/SAS.dbo.SAS_Docs/88a6fc61-c288-dd11-92da-001cc4696bcc
Review Markings:
Margaret P. Grafeld
Declassified/Released
US Department of State
EO Systematic Review
22 May 2009
Markings: Margaret P. Grafeld Declassified/Released US Department of State EO Systematic Review 22 May 2009